

Work Order ID 163575

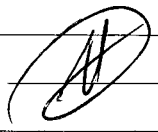
Thursday, June 29, 2017 3:00:12 PM

163575

Page 1

Ship 07/24

Item ID: D3043-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Step Weldment LH
 Start Date: 7/5/2017 Start Qty: 2.00 *2* Cust Item ID:
 Required Date: 7/17/2017 Req'd Qty: 2.00 *2* Customer:
 Reference:

Approvals: Process Plan:  Date: JUN 29 2017 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3043	Rev A

100	Large Fab	0.00							
100									
Large Fab	Memo	1.60							
Large Fab	1-Cut D2622-120 extrusion to 120.00" long as per Dwg D3043 using cutting table setup DT8185-G								
	2-Deburr and bevel ends for welding								

2x 2017-07-17

110	QC6- All purchased or subcontracted products	0.00							
110									
QC	Memo	0.00							
Quality Control									

2 JUL 19 2017 DAS 24 9-89

120	Large Fab	0.00							
120									
Large Fab	Memo	1.98							
Large Fab	1-Weld 1 End Cap & Mounting Lugs as per QSI 004 & Dwg D3043 Using DT8802								
	AR AL ROD Batch: 137078								
	2-Grind Fwd End Cap weld flush								

2 JUL 19 2017 DAS 24 9-89

Thursday, June 29, 2017 3:00:12 PM

163575

Page 2

N900040100

Setup Start *NS1*

Item Name: Step Weldment LH

Stop *NS2*

Start Date: 7/5/2017 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 7/17/2017 **Req'd Qty:** 2.00 ***Q***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC9- Inspect visual per QSI004- Fusion Welds

0.00

130

QC

Memo

0.00

Quality Control

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.04

Quality Control

150

Chemical Conversion Coat per QSI005 4.1

0.00

150

HandFinish

Memo

0.61

Hand Finishing

Thursday, June 29, 2017 3:00:12 PM

Page 4

0.73

Work Order ID 163575

Thursday, June 29, 2017 3:00:12 PM

163575

Page 5

Item ID: D3043-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Weldment LH

Start Date: 7/5/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 7/17/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230

QC3- Inspect Part Finish

0.00

230

QC

Memo

0.02

Quality Control

DAS
38
9-89

JUL 25 2017

240

Identify as per dwg & Stock Location: PKC

0.00

240

Packaging

Memo

0.02

Packaging

DAS
6
9-89
JUN 28 2017

250

QC21- Final Inspection - Work Order Release

0.00

250

QC

Memo

0.20

Quality Control

DAS
21
9-89

JUL 26 2017

Picklist Print

Thursday, June 29, 2017 3:00:11 PM

Page 1

Work Order ID: 163575

163575

Parent Item: D3043-041

D3043-041

Parent Item Name: Step Weldment LH

Start Date: 7/5/2017

Required Date: 7/17/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev :A New Issue JLM 05-11-01

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C		Manufactured	No			100	Each	51.5000	1	2			
D2622-120C									**			2017-07-17	
Step Extrusion													

Location

Loc Qty

Loc Code

WA003

51.5

B15236 → 2

152316

18.5

157441

33

D2734		Manufactured	No			120	Each	91.0000	1	2			
D2734									**			2017-07-17	
Step End Plate													

Location

Loc Qty

Loc Code

WA003

91

B162890 → 2

161519

71

162890

20

D2734		Manufactured	No			160	Each	91.0000	1	2			
D2734									**			JUL 20 2017	
Step End Plate													

Location

Loc Qty

Loc Code

WA003

91

161519

71

162890

20

D3040-1		Manufactured	No			120	Each	16.0000	2	4			
D3040-1									**			2017-07-17	
Mounting Lug													

Location

Loc Qty

Loc Code

WA003

10

B127079 → 4

125837

10

127079

6

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																	
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																	
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																	
Large Fab ☐	Composite ☐	Supplier ☐																																																																		
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																																																																
Description Work Order Deviation		Disposition		Completed By																																																																
				Lead hand / Supervisor Approval Verification																																																																
				QC / QA Coordinator Approval																																																																
Root Cause		FAULT CATEGORY																																																																		
<table style="width:100%; border: none;"> <tr><td style="border: none;">Environment ☐</td><td style="border: none;">No Re-verification ☐</td></tr> <tr><td style="border: none;">Design ☐</td><td style="border: none;">Operator ☐</td></tr> <tr><td style="border: none;">Doc/Data ☐</td><td style="border: none;">Offset/Setup ☐</td></tr> <tr><td style="border: none;">Equip/Tooling ☐</td><td style="border: none;">Supplier ☐</td></tr> <tr><td style="border: none;">Handling/Pre ☐</td><td style="border: none;">Training ☐</td></tr> <tr><td style="border: none;">Material ☐</td><td style="border: none;">Use for Testing ☐</td></tr> <tr><td style="border: none;">Internal Transport ☐</td><td style="border: none;">Poor Information ☐</td></tr> <tr><td style="border: none;">Tribal Knowledge ☐</td><td style="border: none;">Rushing ☐</td></tr> <tr><td style="border: none;">LOA ☐</td><td style="border: none;">Product Improvement ☐</td></tr> <tr><td style="border: none;">Substation ☐</td><td style="border: none;">Process Improvement ☐</td></tr> <tr><td style="border: none;">Past Expiry Date ☐</td><td style="border: none;">Manufacturing Process ☐</td></tr> <tr><td style="border: none;">Misidentified ☐</td><td style="border: none;">Past Due ☐</td></tr> </table>	Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Pressure/Forced ☐</td></tr> <tr><td style="border: none;">Bending ☐</td></tr> <tr><td style="border: none;">Centre Not Concentric ☐</td></tr> <tr><td style="border: none;">Cracks ☐</td></tr> <tr><td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td></tr> <tr><td style="border: none;">Cuffs ☐</td></tr> <tr><td style="border: none;">Crushing ☐</td></tr> <tr><td style="border: none;">Heat Treat ☐</td></tr> <tr><td style="border: none;">Wave/Twist in Tube ☐</td></tr> <tr><td style="border: none;">Marks/Chatter ☐</td></tr> </table>	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Temperature/Cure ☐</td></tr> <tr><td style="border: none;">Set-up ☐</td></tr> <tr><td style="border: none;">BOM/Route ☐</td></tr> <tr><td style="border: none;">Broken/Damage/Defect ☐</td></tr> <tr><td style="border: none;">Inspection Incomplete/Unqualified ☐</td></tr> <tr><td style="border: none;">Contamination ☐</td></tr> <tr><td style="border: none;">Countersink ☐</td></tr> <tr><td style="border: none;">Cut Too Short ☐</td></tr> <tr><td style="border: none;">Instructions Incomplete/Unclear ☐</td></tr> <tr><td style="border: none;">Drill Holes ☐</td></tr> </table>	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Power Loss/Surge ☐</td></tr> <tr><td style="border: none;">Folio/Program ☐</td></tr> <tr><td style="border: none;">Grain ☐</td></tr> <tr><td style="border: none;">Weld ☐</td></tr> <tr><td style="border: none;">Wrong Stock Pulled ☐</td></tr> <tr><td style="border: none;">Out of Sequence ☐</td></tr> <tr><td style="border: none;">Off-set ☐</td></tr> <tr><td style="border: none;">Mislabeled ☐</td></tr> <tr><td style="border: none;">Fit/Function ☐</td></tr> <tr><td style="border: none;">Misaligned/off center ☐</td></tr> </table>	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	<table style="width:100%; border: none;"> <tr><td style="border: none;">Positioned Wrong ☐</td></tr> <tr><td style="border: none;">Outside Dimensions ☐</td></tr> <tr><td style="border: none;">Over/Under tolerance ☐</td></tr> <tr><td style="border: none;">Part Incorrect ☐</td></tr> <tr><td style="border: none;">Part Lost/Missing ☐</td></tr> <tr><td style="border: none;">Part Moved ☐</td></tr> <tr><td style="border: none;">Drawing ☐</td></tr> <tr><td style="border: none;">Finish ☐</td></tr> <tr><td style="border: none;">Misread ☐</td></tr> <tr><td style="border: none;">Turning Sequence ☐</td></tr> </table>	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																			
Design ☐	Operator ☐																																																																			
Doc/Data ☐	Offset/Setup ☐																																																																			
Equip/Tooling ☐	Supplier ☐																																																																			
Handling/Pre ☐	Training ☐																																																																			
Material ☐	Use for Testing ☐																																																																			
Internal Transport ☐	Poor Information ☐																																																																			
Tribal Knowledge ☐	Rushing ☐																																																																			
LOA ☐	Product Improvement ☐																																																																			
Substation ☐	Process Improvement ☐																																																																			
Past Expiry Date ☐	Manufacturing Process ☐																																																																			
Misidentified ☐	Past Due ☐																																																																			
Pressure/Forced ☐																																																																				
Bending ☐																																																																				
Centre Not Concentric ☐																																																																				
Cracks ☐																																																																				
Crimp/Kink/Ripple/Wave ☐																																																																				
Cuffs ☐																																																																				
Crushing ☐																																																																				
Heat Treat ☐																																																																				
Wave/Twist in Tube ☐																																																																				
Marks/Chatter ☐																																																																				
Temperature/Cure ☐																																																																				
Set-up ☐																																																																				
BOM/Route ☐																																																																				
Broken/Damage/Defect ☐																																																																				
Inspection Incomplete/Unqualified ☐																																																																				
Contamination ☐																																																																				
Countersink ☐																																																																				
Cut Too Short ☐																																																																				
Instructions Incomplete/Unclear ☐																																																																				
Drill Holes ☐																																																																				
Power Loss/Surge ☐																																																																				
Folio/Program ☐																																																																				
Grain ☐																																																																				
Weld ☐																																																																				
Wrong Stock Pulled ☐																																																																				
Out of Sequence ☐																																																																				
Off-set ☐																																																																				
Mislabeled ☐																																																																				
Fit/Function ☐																																																																				
Misaligned/off center ☐																																																																				
Positioned Wrong ☐																																																																				
Outside Dimensions ☐																																																																				
Over/Under tolerance ☐																																																																				
Part Incorrect ☐																																																																				
Part Lost/Missing ☐																																																																				
Part Moved ☐																																																																				
Drawing ☐																																																																				
Finish ☐																																																																				
Misread ☐																																																																				
Turning Sequence ☐																																																																				
OTHER : ☐																																																																				

Picklist Print

Thursday, June 29, 2017 3:00:11 PM

Page 2

Work Order ID: 163575

163575

Parent Item: D3043-041

D3043-041

Parent Item Name: Step Weldment LH

Start Date: 7/5/2017

Required Date: 7/17/2017

Start Qty: 2.00

Required Qty: 2.00

D3040-3

Manufactured No

100

Each

32.0000

2

4

✓ *D3040-3*

Mounting Lug

**

DC 2017-07-17

Location

Loc Qty

Loc Code

WA003

127080

128957

83998

32

9

20

3

B127080 -> 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date : _____		Step # : _____		QTY Effective : _____			MRB (QS1042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By																																																							
Root Cause				FAULT CATEGORY																																																											
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	No Re-verification ☐	Operator ☐	Offset/Setup ☐	Supplier ☐	Training ☐	Use for Testing ☐	Poor Information ☐	Rushing ☐	Product Improvement ☐	Process Improvement ☐	Manufacturing Process ☐	Past Due ☐	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
OTHER : _____																																																															



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3043	REV. A SHEET 1 OF 2
DATE 01.06.28		TITLE A119 STEP WELDMENT	SCALE NTS
A	01.06.28	NEW ISSUE	

PARTS LIST:

Qty -041	Qty -043	Part Number	Description
X		D3043-041	STEP WELDMENT, LH
	X	D3043-042	STEP WELDMENT, RH
1	1	D2622-120	STEP EXTRUSION
2	2	D3040-1	MOUNTING LUG
2	2	D3040-3	MOUNTING LUG
2	2	D2734	ENDPLATE

NOTES:

- 1) MANUFACTURE FROM D2622-120 EXTRUSION
- 2) WELD PER DART QSI 004. ALL WELDS SHOULD BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004
- 3) FINISH: ACID ETCH & ALODINE ASSEMBLY PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT TOP SURFACE OF STEP TO BOTTOM OF TOP
RADIUS PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *16387SA*

RELEASED
01.07.05

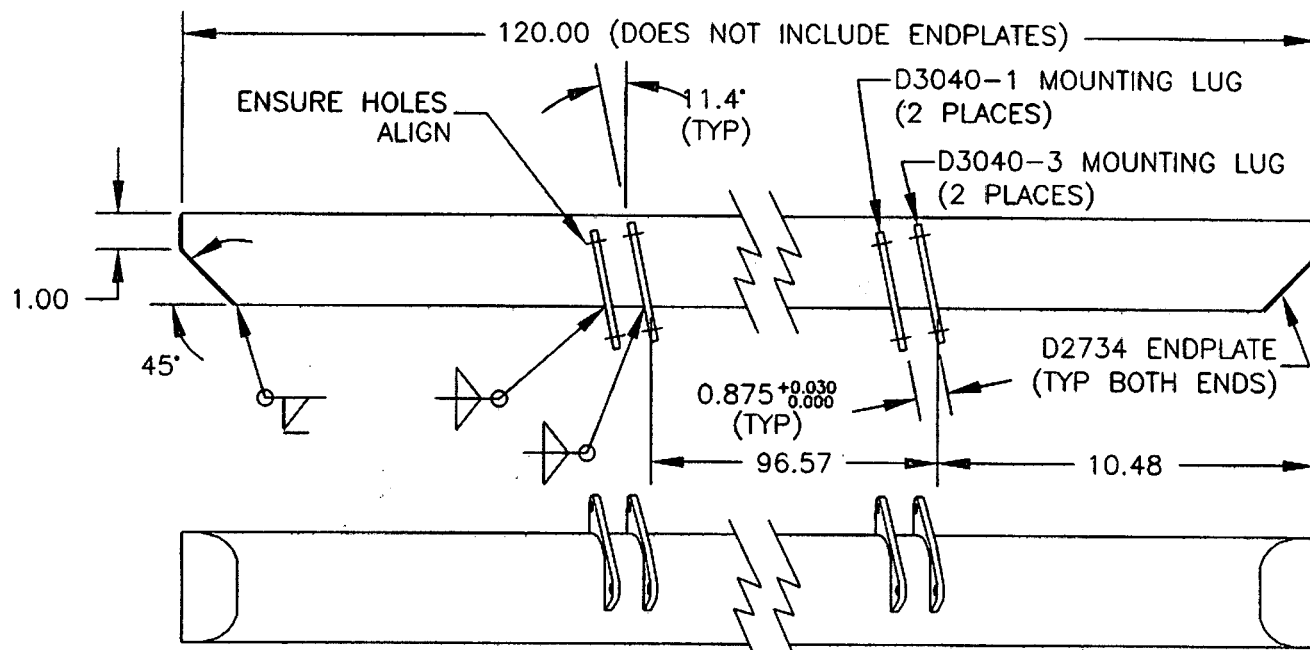
JUN 29 2017

Copyright © 2001 by DART AEROSPACE USA, INC.

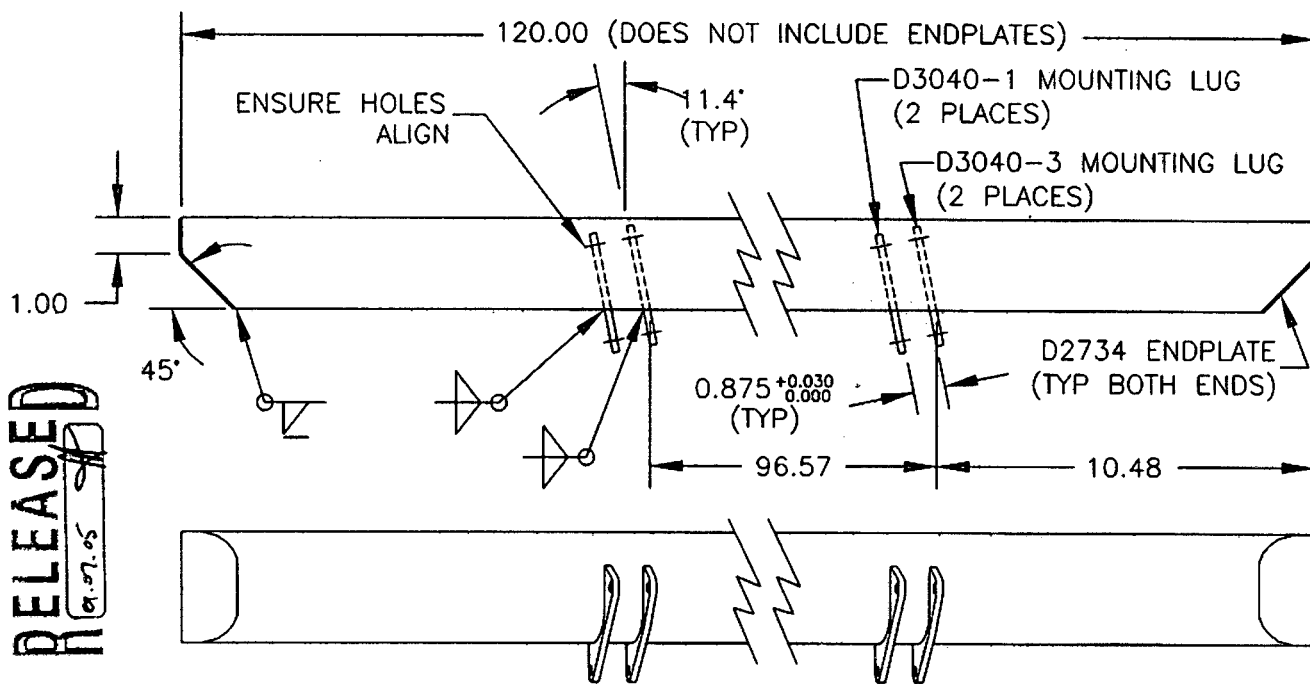
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.



DESIGN CP	DRAWN BY CP	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3043	REV. A SHEET 2 OF 2
DATE 01.06.28		TITLE A119 STEP WELDMENT	SCALE 1:5
A	01.06.28	NEW ISSUE	



VIEW A-A: D3043-041 LH STEP WELDMENT



VIEW A-A: D3043-042 RH STEP WELDMENT

RELEASED
01.07.05

Copyright © 2001 by DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.